

## Complete Summary

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### TITLE

Hypertension: percentage of patient visits with blood pressure measurement recorded.

### SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement™. Clinical performance measures: hypertension. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2005. 4 p. [12 references]

## Measure Domain

### PRIMARY MEASURE DOMAIN

#### Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure is used to assess the percentage of patient visits with blood pressure measurement recorded among all patient visits for patients aged greater than or equal to 18 years with diagnosed hypertension.

### RATIONALE

According to National Heart, Lung, and Blood Institute (NHLBI), Institute for Clinical Systems Improvement (ICSI), and Department of Veterans Affairs (US) guidelines, obtaining proper blood pressure (BP) measurements at each health care encounter is recommended for hypertension detection. Repeated BP measurements (greater than or equal to 2 per patient visit) will determine if initial elevations persist and require prompt attention.

According to National Heart, Lung, and Blood Institute (NHLBI) guideline, classification of adult BP (including stages 1 to 3 of hypertension) is useful for making treatment decisions and is based on the average of greater than or equal to 2 readings taken at each of 2 or more visits after an initial screening.

According to National Heart, Lung, and Blood Institute (NHLBI) guideline, hypertension is defined as systolic BP of 140 mm Hg or greater, diastolic BP of 90 mm Hg or greater, or taking antihypertensive medication.

#### PRIMARY CLINICAL COMPONENT

Hypertension; blood pressure measurement

#### DENOMINATOR DESCRIPTION

All patient visits for patients aged greater than or equal to 18 years with diagnosed hypertension

#### NUMERATOR DESCRIPTION

Patient visits with blood pressure measurement recorded

### Evidence Supporting the Measure

#### EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

#### NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Primary prevention of hypertension. Clinical and public health advisory from the National High Blood Pressure Education Program.](#)

### Evidence Supporting Need for the Measure

#### NEED FOR THE MEASURE

Variation in quality for the performance measured

#### EVIDENCE SUPPORTING NEED FOR THE MEASURE

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

Oliveria SA, Lapuerta P, McCarthy BD, L'Italien GJ, Berlowitz DR, Asch SM. Physician-related barriers to the effective management of uncontrolled hypertension. Arch Intern Med 2002 Feb 25; 162(4): 413-20. [PubMed](#)

The state of health care quality, 2002. [internet]. National Committee for Quality Assurance; [cited 2003 Jan 01].

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

External oversight/Medicare  
Internal quality improvement  
National reporting

## Application of Measure in its Current Use

### CARE SETTING

Ambulatory Care  
Community Health Care  
Managed Care Plans  
Physician Group Practices/Clinics  
Rural Health Care

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses  
Physician Assistants  
Physicians

### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

### TARGET POPULATION AGE

Age greater than or equal to 18 years

### TARGET POPULATION GENDER

Either male or female

### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

### INCIDENCE/PREVALENCE

Fifty million, or approximately 1 in 5 Americans (1 in 4 adults), have hypertension.

Despite potential risks and established clinical guidelines, recent data suggest that some patients are not being managed optimally for this disease. It has been reported that:

- Approximately 15% of individuals who are aware that they have hypertension are not receiving therapy, and about 26% are receiving inadequate therapy and treatment.
- In 2001, only 55% of individuals aged 46-85 years in Health Plan Employer Data & Information Set (HEDIS®) participating managed care plans had their hypertension adequately controlled.
- In 2000, only 47% of Medicare beneficiaries had their hypertension adequately controlled.

### EVIDENCE FOR INCIDENCE/PREVALENCE

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

Oliveria SA, Lapuerta P, McCarthy BD, L'Italien GJ, Berlowitz DR, Asch SM. Physician-related barriers to the effective management of uncontrolled hypertension. Arch Intern Med 2002 Feb 25; 162(4): 413-20. [PubMed](#)

The state of health care quality, 2002. [internet]. National Committee for Quality Assurance; [cited 2003 Jan 01].

### ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

### BURDEN OF ILLNESS

Hypertension, the most treatable form of cardiovascular disease, has been identified as a major risk factor for coronary heart disease, the leading cause of death in the United States. Untreated hypertension can also result in stroke, kidney failure, and blindness. Nearly one-third of adults with hypertension are unaware of it, which therefore increases the risk of associated complications and diseases.

From 1989 to 1999, the mortality rate from hypertension increased 21%.

### EVIDENCE FOR BURDEN OF ILLNESS

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

## UTILIZATION

Unspecified

## COSTS

The total direct and indirect costs of hypertension in the United States are estimated at more than \$50 billion annually.

## EVIDENCE FOR COSTS

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

## Institute of Medicine National Healthcare Quality Report Categories

### IOM CARE NEED

Living with Illness

### IOM DOMAIN

Effectiveness

## Data Collection for the Measure

### CASE FINDING

Users of care only

### DESCRIPTION OF CASE FINDING

All patient visits for patients aged greater than or equal to 18 years with diagnosed hypertension

### DENOMINATOR SAMPLING FRAME

Patients associated with provider

### DENOMINATOR INCLUSIONS/EXCLUSIONS

#### Inclusions

All patient visits for patients aged greater than or equal to 18 years with diagnosed hypertension

Exclusions  
None

#### RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

#### DENOMINATOR (INDEX) EVENT

Clinical Condition

#### DENOMINATOR TIME WINDOW

Time window follows index event

#### NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions  
Patient visits with blood pressure measurement recorded

Exclusions  
None

#### MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

#### NUMERATOR TIME WINDOW

Encounter or point in time

#### DATA SOURCE

Medical record

#### LEVEL OF DETERMINATION OF QUALITY

Individual Case

#### PRE-EXISTING INSTRUMENT USED

None

### Computation of the Measure

#### SCORING

Rate

#### INTERPRETATION OF SCORE

Better quality is associated with a higher score

#### ALLOWANCE FOR PATIENT FACTORS

Unspecified

#### STANDARD OF COMPARISON

Internal time comparison

### Evaluation of Measure Properties

#### EXTENT OF MEASURE TESTING

Unspecified

### Identifying Information

#### ORIGINAL TITLE

Blood pressure measurement.

#### MEASURE COLLECTION

[The Physician Consortium for Performance Improvement Measurement Sets](#)

#### MEASURE SET NAME

[American College of Cardiology, American Heart Association, and Physician Consortium for Performance Improvement: Hypertension Physician Performance Measurement Set](#)

#### SUBMITTER

American Medical Association on behalf of the American College of Cardiology, the American Heart Association, and the Physician Consortium for Performance Improvement

#### DEVELOPER

American College of Cardiology - Medical Specialty Society  
American Heart Association  
Physician Consortium for Performance Improvement

#### ADAPTATION

Measure was not adapted from another source.

#### RELEASE DATE

2003 Oct

#### REVISION DATE

2005 Aug

#### MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement. Clinical performance measures: hypertension. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2003. 4 p.

#### SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement™. Clinical performance measures: hypertension. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2005. 4 p. [12 references]

#### MEASURE AVAILABILITY

The individual measure, "Blood Pressure Measurement," is published in the "Clinical Performance Measures: Hypertension." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement Web site: [www.physicianconsortium.org](http://www.physicianconsortium.org).

For further information, please contact AMA staff by e-mail at [cqi@ama-assn.org](mailto:cqi@ama-assn.org).

#### COMPANION DOCUMENTS

The following are available:

- Physician Consortium for Performance Improvement. Introduction to physician performance measurement sets. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2001 Oct. 21 p. This document is available from the American Medical Association (AMA) Clinical Quality Improvement Web site: [www.ama-assn.org/go/quality](http://www.ama-assn.org/go/quality).
- Physician Consortium for Performance Improvement. Principles for performance measurement in health care. A consensus statement. [online]. Chicago (IL): American Medical Association (AMA), Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), National Committee for Quality Assurance (NCQA); [3 p]. This document is available from the AMA Clinical Quality Improvement Web site: [www.ama-assn.org/go/quality](http://www.ama-assn.org/go/quality).



- Physician Consortium for Performance Improvement. Desirable attributes of performance measures. A consensus statement. [online]. American Medical Association (AMA), Joint Commission on Accreditation of Healthcare Organizations (JCAHO), National Committee for Quality Assurance (NCQA); 1999 Apr 19 [cited 2002 Jun 19]. [5 p]. This document is available from the AMA Clinical Quality Improvement Web site: [www.ama-assn.org/go/quality](http://www.ama-assn.org/go/quality).

For further information, please contact AMA staff by e-mail at [cqi@ama-assn.org](mailto:cqi@ama-assn.org).

## NQMC STATUS

This NQMC summary was completed by ECRI on March 3, 2004. The information was verified by the measure developer on September 17, 2004. This NQMC summary was updated by ECRI on September 28, 2005. The information was verified by the measure developer on December 22, 2005.

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These Measures are intended to assist physicians in enhancing quality of care. Measures are designed for use by any physician who manages the care of a patient for a specific condition or for prevention. These performance Measures are not clinical guidelines and do not establish a standard of medical care. The Consortium has not tested its Measures for all potential applications. The Consortium encourages the testing and evaluation of its Measures.

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